Appln. No.: 09/981,795

Amendment dated February 13, 2006

Reply to Office Action of October 12, 2005

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:** 

Claims 1 - 11 (canceled)

12. (Currently amended) A method for data extraction from a data stream containing at least one

data packet, comprising the steps of:

comparing a bit stream derived from a received digital data stream with an expected bit

sequence to determine a correlation value for detecting a data packet;

starting data extraction when the correlation value exceeds a threshold value indicating

that a data packet has been detected;

storing the correlation value that exceeds a the threshold value as a maximum correlation

value for use as a new threshold value;

continuing comparing the received bit stream with the expected bit sequence to determine

a new correlation value; and

restarting data extraction when the new correlation value exceeds the stored maximum

correlation value.

13. (Previously presented) The method as claimed in claim 12, wherein the threshold value is a

programmable value.

14. (Previously presented) The method as claimed in claim 12, wherein the correlation value is

stored as the maximum correlation value each time data extraction is started or restarted and the

new correlation value continuously determined after starting or restarting data extraction is

compared with the stored maximum correlation value.

15. (Previously presented) The method as claimed in claim 12, wherein data extracted prior to

restarting data extraction is rejected.

Page 2 of 8

Appln. No.: 09/981,795

Amendment dated February 13, 2006

Reply to Office Action of October 12, 2005

16. (Previously presented) The method as claimed in claim 12, wherein after detecting a data

packet an initial timing estimate is determined prior to starting data extraction that synchronizes

sampling of bits from a data stream for data extraction with data stream symbols.

17. (Currently amended) The method as claimed in claim 16, wherein timing of the sampling of

bits is continuously tracked by comparing timing of symbols within an oversampled bitstream

with actual timing of the sampling of bits and correcting the timing of the sample sampling of

bits if a deviation between the timing of the sampling of bits and the timing of the symbols

exceeds a value.

18. (Currently amended) A device for data extraction from a data stream containing at least one

data packet, comprising:

a data extraction unit for extracting data from a received data stream;

a packet detector for comparing a bit stream derived from a received digital data stream

with an expected bit sequence to determine a correlation value for detecting a data packet, the

packet detector comprising means for comparing the received bit stream with the expected bit

sequence after starting data extraction to determine a new correlation value; and

a sync-control module for receiving the correlation value from the packet detector, the

sync-control module controlling the data extraction unit for starting or restarting data extraction

when the correlation value exceeds a threshold value or a stored maximum correlation value

indicating that a data packet has been detected, and for storing the correlation value that exceeds

4-the threshold value as maximum correlation value for use as a new threshold value.

19. (Previously presented) The device as claimed in claim 18, wherein the device comprises an

initial timing estimator which receives the digital data stream for determining an initial timing

estimate prior to starting data extraction for synchronizing data extraction with data stream

symbols, the initial timing estimate being output to the sync-control module.

Page 3 of 8

Appln. No.: 09/981,795

Amendment dated February 13, 2006

Reply to Office Action of October 12, 2005

20. (Previously presented) The device as claimed in claim 18, wherein the data extraction unit

comprises a DC estimator deriving a DC estimate from the received data stream, a comparator

for performing a bit decision on data of the received data stream to derive an oversampled bit

stream, the comparator including first and second inputs for receiving the DC estimate from the

DC estimator and the data stream, respectively, and a sample-and-hold module for sampling the

oversampled bit stream received from the comparator.

21. (Previously presented) The device as claimed in claim 20, wherein the data extraction unit

comprises a timing estimator for receiving the oversampled bit stream output by the comparator

for tracking the initial timing and for controlling the sample-and-hold module.